

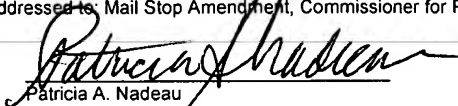


*Jfw*

Docket No.: S1459.70088US00  
(PATENT)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: Masashi Enomoto et al.  
Serial No.: 10/822556  
Confirmation No.: 2616  
Filed: April 12, 2004  
For: PHOTOELECTRIC CONVERSION DEVICE FABRICATION  
METHOD, PHOTOELECTRIC CONVERSION DEVICE,  
ELECTRONIC APPARATUS MANUFACTURING METHOD,  
ELECTRONIC APPARATUS, METAL FILM FORMATION  
METHOD AND LAYER STRUCTURE AND SEMICONDUCTOR  
FINE PARTICLE LAYER AND LAYER STRUCTURE  
Examiner: Not Yet Assigned  
Art Unit: 1756

|  |   |
|--|---|
| <b>Certificate of Mailing Under 37 CFR 1.8(a)</b>  |   |
| I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the U.S. Postal Service on the date shown below with sufficient postage as First Class Mail, in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450. |   |
| Dated: July 20, 2006   | <br>Patricia A. Nadeau |

**TRANSMITTAL LETTER**

**Mail Stop Amendment**  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Enclosed are the following items for filing in connection with the above-referenced Patent Application:

1. Supplemental Information Disclosure Statement;
2. PTO Form 1449; and
3. Copies of cited references.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to

be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 23/2825, under Docket No. S1459.70088US00. A duplicate copy of this paper is enclosed.

Dated: July 20, 2006

Respectfully submitted,

By *Randy J. Pritzker*  
Randy J. Pritzker  
Registration No.: 35,986  
WOLF, GREENFIELD & SACKS, P.C.  
Federal Reserve Plaza  
600 Atlantic Avenue  
Boston, Massachusetts 02210-2206  
(617) 646-8000



DOCKET NO.: S1459.70088S00

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

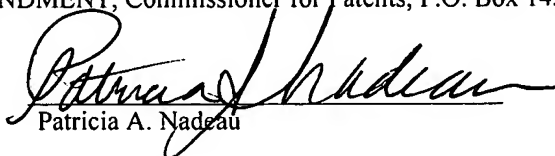
Applicant: Masashi Enomoto et al.  
Serial No.: 10/822,556  
Confirmation No.: 2616  
Filed: April 12, 2004  
For: PHOTOELECTRIC CONVERSION DEVICE  
FABRICATION METHOD, ...

Examiner: Not yet known  
Art Unit: 1756

---

**CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)**

The undersigned hereby certifies that this document is being placed in the United States mail with first-class postage attached, addressed to MAIL STOP AMENDMENT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the 20th day of July, 2006.

  
Patricia A. Nadreau

---

**MAIL STOP AMENDMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**SUPPLEMENTAL STATEMENT FILED PURSUANT TO THE DUTY OF  
DISCLOSURE UNDER 37 CFR §§1.56, 1.97 AND 1.98**

Sir:

Pursuant to the duty of disclosure under 37 C.F.R. §§1.56, 1.97 and 1.98, the Applicant requests consideration of this Information Disclosure Statement.

**PART I: Compliance with 37 C.F.R. §1.97**

This Information Disclosure Statement has been filed before the mailing of a first Office action on the merits in the above-identified case.

No fee or certification is required.

**PART II: Information Cited**

The Applicant hereby makes of record in the above-identified application the information listed on the attached form PTO-1449 (modified PTO/SB/08). The order of presentation of the references should not be construed as an indication of the importance of the references.

The Applicant hereby makes the following additional information of record in the above-identified application.

The Applicant would like to bring to the Examiner's attention the following co-pending applications that may contain subject matter related to this application:

| <u>Attorney Docket No.</u> | <u>Serial No.</u> | <u>Filing Date</u> | <u>Inventor(s)</u> |
|----------------------------|-------------------|--------------------|--------------------|
| S1459.70081US00            | 10/543,05         | 07/21/05           | Ishibashi et al.   |

The Applicant would like to bring to the Examiner's attention the following other information, whose relevance is discussed in Part III below:

PART III: Explanation of References and Remarks Concerning Other Information Cited

The following are remarks concerning the other information cited: The Applicant does not necessarily agree with the substance of the attached e-mail regarding the relevance of the prior art.

PART IV: Remarks

Documents cited anywhere in the Information Disclosure Statement are enclosed unless otherwise indicated. It is respectfully requested that:

1. The Examiner consider completely the cited information, along with any other information, in reaching a determination concerning the patentability of the present claims;
2. The enclosed form PTO-1449 (modified PTO/SB/08) be signed by the Examiner to evidence that the cited information has been fully considered by the Patent and Trademark Office during the examination of this application;
3. The citations for the information be printed on any patent which issues from this application.

By submitting this Information Disclosure Statement, the Applicant makes no representation that a search has been performed, of the extent of any search performed, or that more relevant information does not exist.

By submitting this Information Disclosure Statement, the Applicant makes no representation that the information cited in the Statement is, or is considered to be, material to patentability as defined in 37 C.F.R. §1.56(b).

By submitting this Information Disclosure Statement, the Applicant makes no representation that the information cited in the Statement is, or is considered to be, in fact, prior art as defined by 35 U.S.C. §102..

Notwithstanding any statements by the Applicant, the Examiner is urged to form his or her own conclusion regarding the relevance of the cited information.

An early and favorable action is hereby requested.

Respectfully submitted,

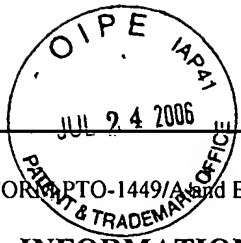
By:

*Randy J. Pritzker*  
Randy J. Pritzker, Reg. No. 35,986  
Wolf, Greenfield & Sacks, P.C.  
600 Atlantic Avenue  
Boston, Massachusetts 02210-2206  
Telephone: (617) 646-8000

Docket No.: S1459.70088S00

Date: July 20, 2006

**xNDDx**



FOR PTO-1449/A and B (modified PTO/SB/08)

# **INFORMATION DISCLOSURE STATEMENT BY APPLICANT**

Sheet 1 of 2

APPLICATION NO.: 10/822,556 ATTY. DOCKET NO.: S1459.70088US00  
 FILING DATE: April 1, 2004 CONFIRMATION NO.: 2616  
 APPLICANT: Masashi Enomoto et al.  
 GROUP ART UNIT: 1756 EXAMINER: unknown

## **U.S. PATENT DOCUMENTS**

| Examiner's<br>Initials # | Cite<br>No. | U.S. Patent Document |              | Name of Patentee or Applicant of Cited<br>Document | Date of Publication or Issue<br>of Cited Document<br>MM-DD-YYYY |
|--------------------------|-------------|----------------------|--------------|--|---|
|                          |             | Number               | Kind<br>Code |  |   |
|                          |             | 6,376,765            | B1           | Wariishi et al.                                    | 04-2002   |
|                          |             | 6,586,670            | B2           | Yoshikawa, Masaru                                  | 07-2003   |
|                          |             | 6,766,817            |              | Elson Silva  | 07-27-2004  |
|                          |             | 6,602,998            |              | Kobuke et al.                                      | 08-05-2003  |
|                          |             | 5,940,550            |              | Plickert et al.                                    | 08-17-1999  |
|                          |             | 6,911,595            |              | Yoshikawa et al.                                   | 06-2005   |
|                          |             | US2004/0251508       | A1           | Takashi Tomita                                     | 12-16-2004  |
|                          |             | US2005/0218467       | A1           | Takashi Tomita                                     | 10-06-2005  |
|                          |             | US2006/0048812       | A1           | Takashi Tomita                                     | 03-09-2006  |
|                          |             | US2005/0224112       | A1           | Yuichi Tokita et al.                               | 10-13-2005  |
|                          |             | US2002/0031080       | A1           | Inoue  | 03-14-2002  |
|                          |             | US2003/0183271       | A1           | Ikeda et al.                                       | 10-02-2003  |
|                          |             | US2006/0084257       | A1           | Yuichi Tokita                                      | 04-20-2006  |
|                          |             | US2006/0137739       | A1           | Imoto et al.                                       | 06-29-2006-----   |
|                          |             | US2002/0015881       | A1           | Yoshisada Nakamura                                 | 02-07-2002  |
|                          |             | US2006/0107994       | A1           | Morooka et al.                                     | 05-25-2006  |
|                          |             | US2006/0112988       | A1           | Morooka  | 06-01-2006  |

## **FOREIGN PATENT DOCUMENTS**

| Examiner's<br>Initials # | Cite<br>No. | Foreign Patent Document |               |              | Name of Patentee or Applicant of Cited<br>Document | Date of<br>Publication of<br>Cited Document<br>MM-DD-YYYY | Translation<br>(Y/N) |
|--------------------------|-------------|-------------------------|---------------|--------------|--|---|----------------------|
|                          |             | Office/<br>Country      | Number        | Kind<br>Code |  |   |                      |
|                          |             | Japan                   | JP10-255863   | A            |  | 09-25-1998  | N                    |
|                          |             | Japan                   | JP2001-93591  | A            |  | 04-06-2001  | N                    |
|                          |             | Japan                   | JP2000-106222 | A            |  | 04-11-2000  | N                    |
|                          |             | Japan                   | JP2002-352870 | A            |  | 12-06-2002  | N                    |
|                          |             | Japan                   | JP2002-352869 | A            |  | 12-06-2002  | N                    |
|                          |             | Japan                   | JP2002-352868 | A            |  | 12-06-2002  | N                    |
|                          |             | Japan                   | JP2002-289274 | A            |  | 10-04-2002  | N                    |
|                          |             | Japan                   | JP11-354169   | A            |  | 12-24-1999  | N                    |
|                          |             | Japan                   | JP2001-253883 | A            |  | 09-18-2001  | N                    |
|                          |             | Japan                   | JP2002-25635  | A            | Japan Science and Technology Corp.                 | 01-02-2002  | N                    |
|                          |             | Japan                   | JP2002-8741   | A            | Fuji Photo Film Co., Ltd.                          | 01-11-2002  | N                    |
|                          |             | Japan                   | JP2000-285975 | A            |  | 10-13-2000  | N                    |
|                          |             | Japan                   | JP2000-195569 | A            |  | 07-14-2000  | N                    |
|                          |             | Japan                   | JP2001-143771 | A            |  | 05-25-2001  | N                    |
|                          |             | Japan                   | JP2002-222971 | A            |  | 08-09-2002  | N                    |
|                          |             | Europe                  | EP 1 431 971  | A1           | Sony Corporation                                   | 06-23-2004  |                      |

|   |   |    |   |                                   |  |                                   |  |
|---|---|----|---|-----------------------------------|--|-----------------------------------|--|
| <b>FORM PTO-1449/A and B (modified PTO/SB/08)</b><br><br><b>INFORMATION DISCLOSURE<br/>STATEMENT BY APPLICANT</b> |   |    |   | APPLICATION NO.: 10/822,556       |  | ATTY. DOCKET NO.: S1459.70088US00 |  |
|   |   |    |   | FILING DATE: April 1, 2004        |  | CONFIRMATION NO.: 2616            |  |
|   |   |    |   | APPLICANT: Masashi Enomoto et al. |  |                                   |  |
|   |   |    |   | GROUP ART UNIT: 1756              |  | EXAMINER: unknown                 |  |
| Sheet   | 2 | of | 2 |                                   |  |                                   |  |

| Examiner's Initials # | Cite No. | Foreign Patent Document |               |              | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document<br>MM-DD-YYYY | Translation (Y/N) |
|-----------------------|----------|-------------------------|---------------|--------------|---|---|-------------------|
|                       |          | Office/<br>Country      | Number        | Kind<br>Code |   |   |                   |
|                       |          | Europe                  | EP 1 156 488  | A2           | Sony Corporation                                | 11-21-2001  |                   |
|                       |          | Japan                   | JP2002-319689 | A            | Sharp Corp.                                     | 10-31-2002  |                   |
|                       |          | Japan                   | JP2000-231942 | A            | Nikon Corp.                                     | 08-22-2000  |                   |
|                       |          | Japan                   | JP2002-8740   | A            |   | 01-11-2002  |                   |
|                       |          | Japan                   | JP2002-289269 | A            | Toyota Central Research & Dev. Labs.            | 10-04-2002  |                   |
|                       |          | Japan                   | JP2002-175843 | A            | Japan Gore-Tex, Inc.                            | 06-21-2002  |                   |
|                       |          | Japan                   | JP2002-353432 | A            | Fuji Photo Film Co., Ltd.                       | 12-06-2002  |                   |

#### OTHER ART — NON PATENT LITERATURE DOCUMENTS

| Examiner's Initials # | Cite No | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | Translation (Y/N) |
|-----------------------|---------|---|-------------------|
|                       |         | UCHIDA, Satoshi, "Application of Titania Nanotubes to A Dye-Sensitized Solar Cell," <i>Electrochemistry</i> , June 2002, Vol. 70, No. 6, pp. 418-420  |                   |
|                       |         | ADACHI, Motonari, "Dye-Sensitized Solar Cells Using Semiconductor Thin Film Composed of Titania Nanotubes," <i>Electrochemistry</i> , June 2002, Vol. 70, No. 6, pp. 449-452  |                   |
|                       |         | ADACHI, Motonari, "Formation, Characterization, and Functions of Ceramic Nanotubes," <i>Transactions of the Materials Research Society of Japan</i> , September 2002, Vol. 27, No. 3, pp. 505-508   |                   |
|                       |         | NGAMSINLAPASATHIAN, S., "Titania Nanotube o Mochiiru Shikiso Zokan Taiyodenchu no Kokoritsuka," <i>The Society of Chemical Engineers, Japan Dai 35 Kai Shuki Taikai Kenkyu Happyo Koen Yoshishu</i> , August 2002, p. 843                                       |                   |
|                       |         | NGAMSINLAPASATHIAN, S., "Higher Efficiency in Dye-Sensitized Solar Cells Using Titania Nanotube," <i>2002 Nen Denki Kagaku Shuki Taikai Koen Yoshishu</i> , September 2002, p. 138  |                   |
|                       |         | ADACHI, M., "Formation of Titanium Oxide Nanotubes and Application to Dye-Sensitized Solar Cells," <i>The Electrochemical Society of Japan Dai 68 Kai Taikai Koen Yoshishu</i> , March 2001, p. 112   |                   |
|                       |         | MURATA, Y., <i>The Synthetic Conditions of Titania Nanotubes Using Template of Molecular Assemblies</i> , CSJ: The Chemical Society of Japan Dai 82 Shuki Nenkai Koen Yokoshu, September 2002, p. 178   |                   |
|                       |         | E-mail from Silva, E ; "US 20060107994 - Requesting IDS of 6,766,817"; May 25, 2006   |                   |
|                       |         | E-mail from Silva, E ; "US 20050016578 - Requesting IDS of 6,766,817"; May 25, 2006   |                   |

|           |                  |
|-----------|------------------|
| EXAMINER: | DATE CONSIDERED: |
|-----------|------------------|

# EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

\*a copy of this reference is not provided as it was previously cited by or submitted to the office in a prior application, Serial No. \_\_, filed \_\_, and relied upon for an earlier filing date under 35 U.S.C. 120 (continuation, continuation-in-part, and divisional applications).

[NOTE – No copies of U.S. patents, published U.S. patent applications, or pending, unpublished patent applications stored in the USPTO's Image File Wrapper (IFW) system, are included. See 37 CFR §1.98 and 1287OG163. Copies of all other patent(s), publication(s), unpublished, pending U.S. patent applications, or other information listed are provided as required by 37 CFR §1.98 unless 1) such copies were provided in an IDS in an earlier application that complies with 37 CFR §1.98, and 2) the earlier application is relied upon for an earlier filing date under 35 U.S.C. §120.]